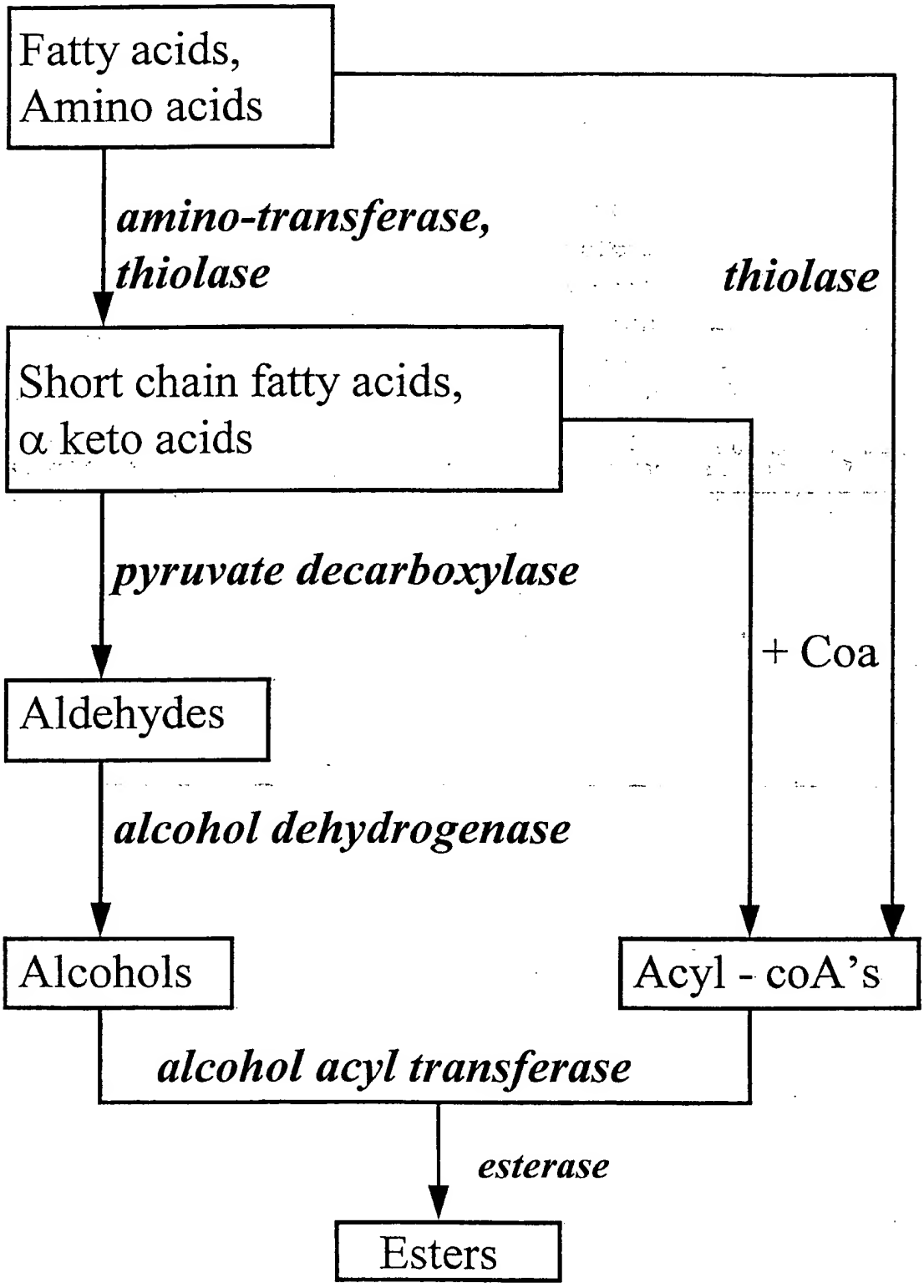

Fatty acids,
Amino acids
amino-transferase,
thiolase
thiolase
Short chain fatty acids,
α keto acids
pyruvate decarboxylase
+ Coa
Aldehydes
alcohol dehydrogenase
Alcohols
Acyl - coA's
alcohol acyl transferase
esterase
Esters

**figure 1**

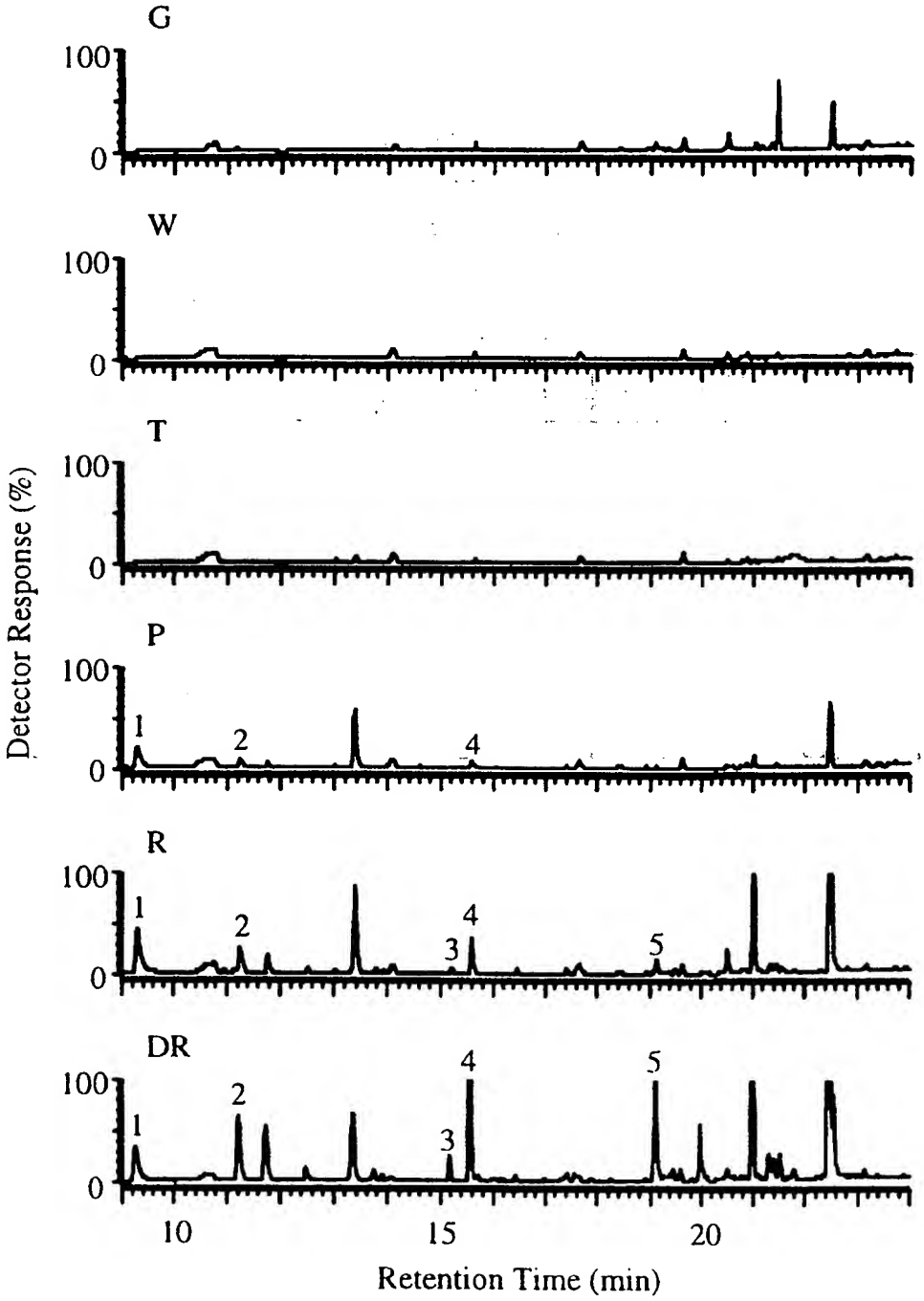

G
W
T
P
R
DR
100
0
1
2
3
4
5
Detector Response (%)
10
15
20
Retention Time (min)

**figure 2**

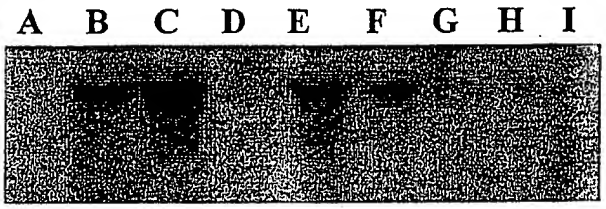
# Strawberry alcohol acyl transferase expression in the different strawberry plant tissues (Northern blot analysis)

1 2 3 4 5 6 7 8 9 10

1 = root
2 = petiole
3 = leaf
4 = flower
5 = green fruit
6 = white fruit
7 = turning fruit
8 = red fruit
9 = seeds
10 = overripe fruit

figure 3

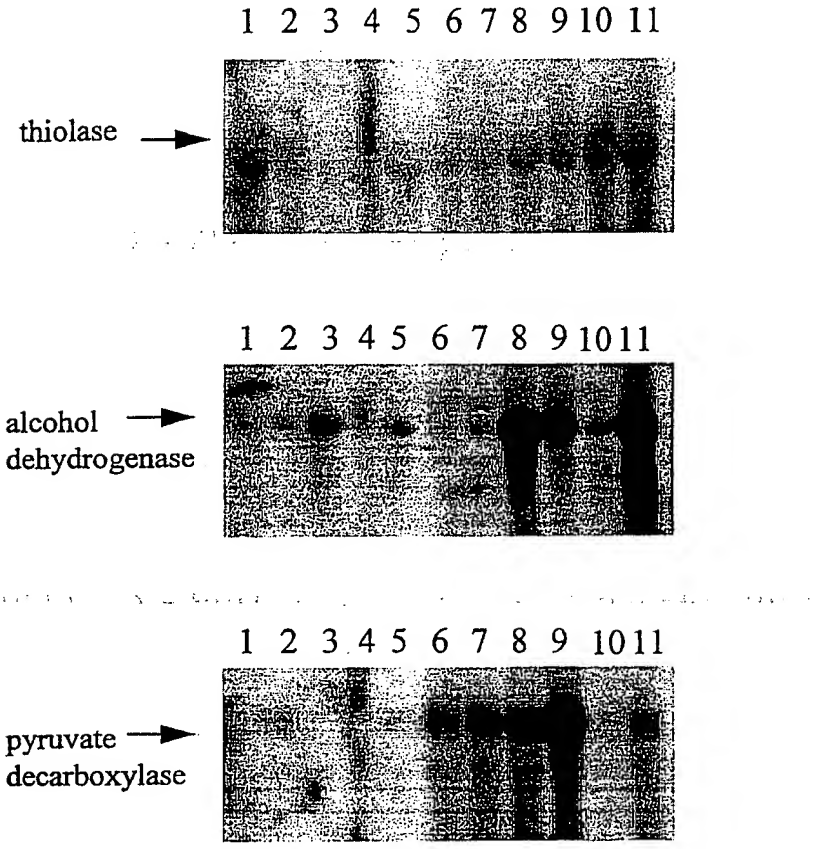
# Citrus lemon acyl transferase expression in the different citrus plant tissues (Northern blot analysis)




A = root
B = leaf
C = flower bud
D = albedo
E = green fruit peel (1.2 x 2 cm)
F = green fruit peel (2 x 3 cm)
G = green fruit peel (3.5 x 6 cm)
H = green fruit peel (6 x 8 cm), ripe
I = yellow fruit peel (2 weeks detached)

**figure 4**

# Expression of thiolase, alcohol dehydrogenase and pyruvate decarboxylase in different strawberry tissues




1 = root
2 = petiole
3 = leaf
4 = flower
5 = green fruit
6 = white fruit
7 = turning fruit
8 = red fruit
9 = red fruit without the seeds (achenes)
10 = seeds
11 = over ripe

figure 5

# Southern blot analysis of strawberry alcohol acyl transferase

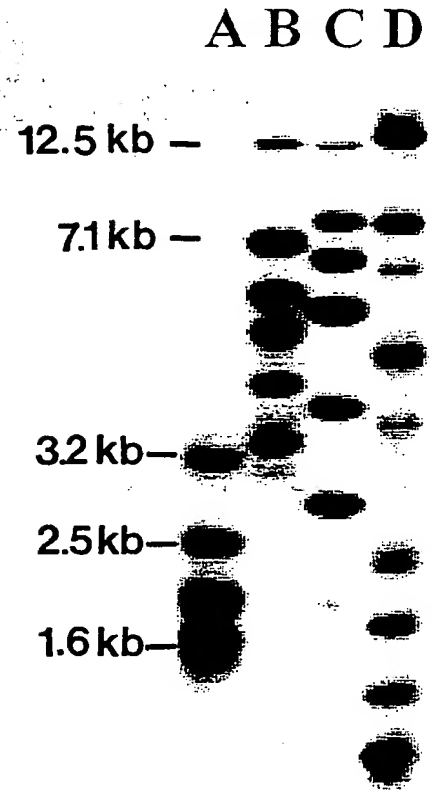



figure 6

A = HindIII
B = EcoRI
C = XbaI
D = XhoI

# The pRSET B expression vector used for the cloning of strawberry alcohol acyl transferase (E27)

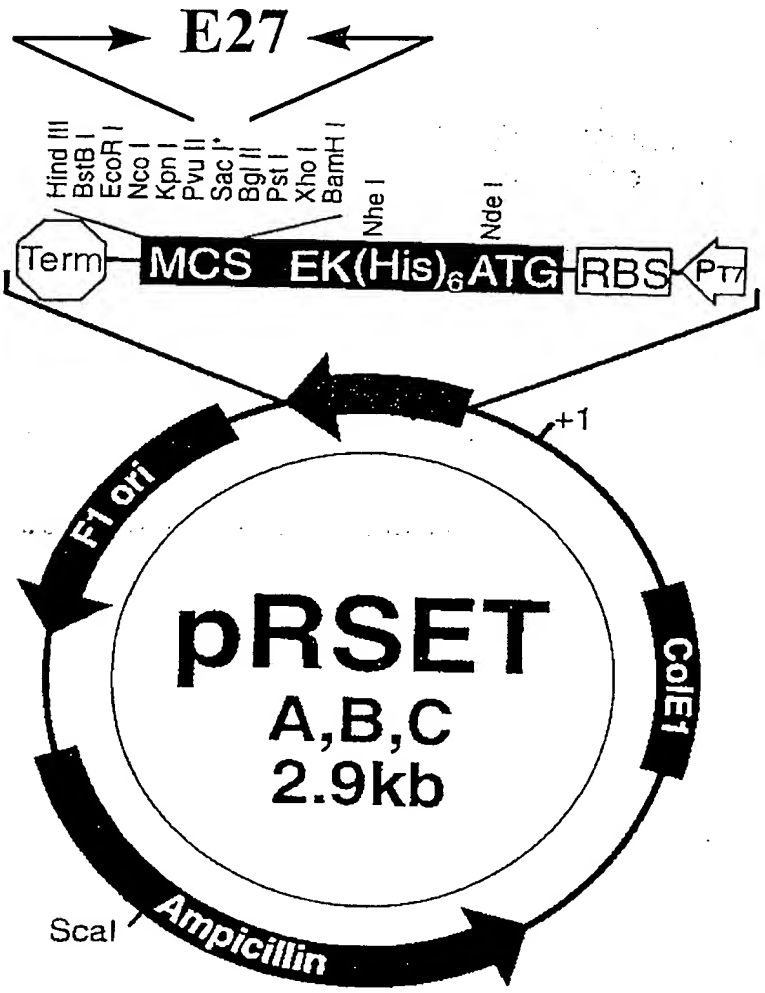



**figure 7**

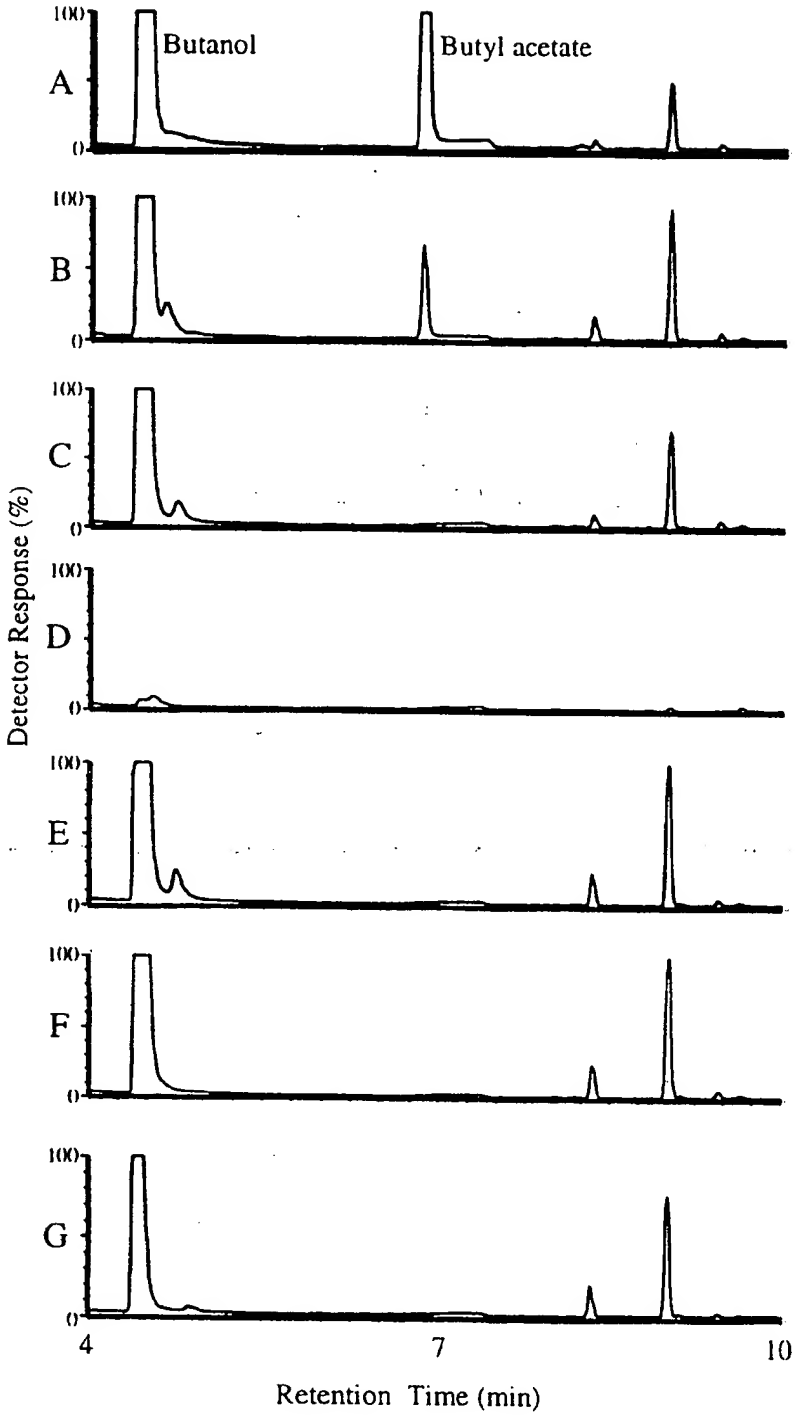
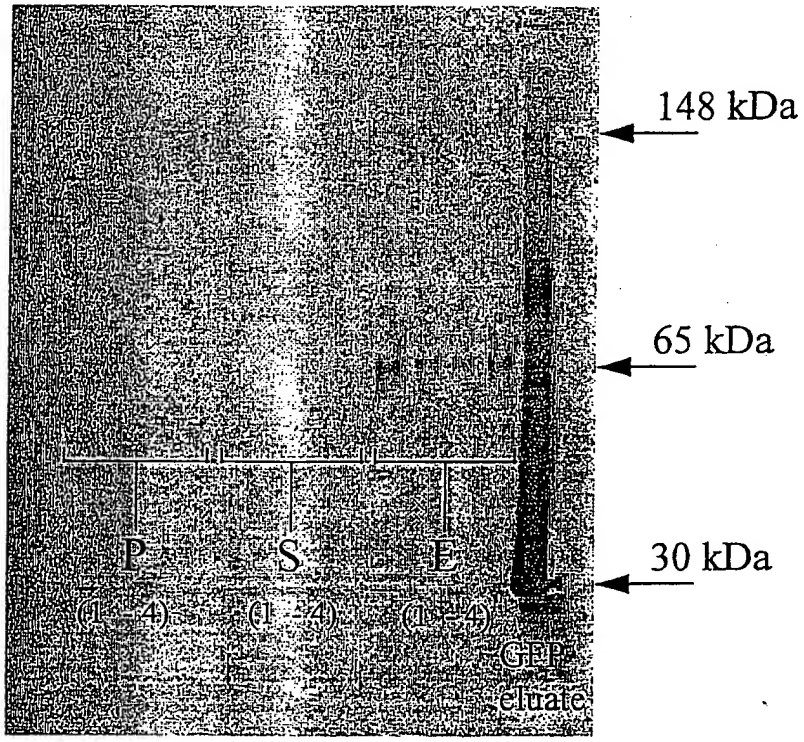

Butanol
Butyl acetate
A
B
C
D
E
F
G
100
0
Detector Response (%)
4
7
10
Retention Time (min)

**figure 8**

**Western blot analysis with the commercial antibody recognzing an epitope peptide fused to the N - terminus of the recombinant strawberry alcohol acyl transferase (E27).**

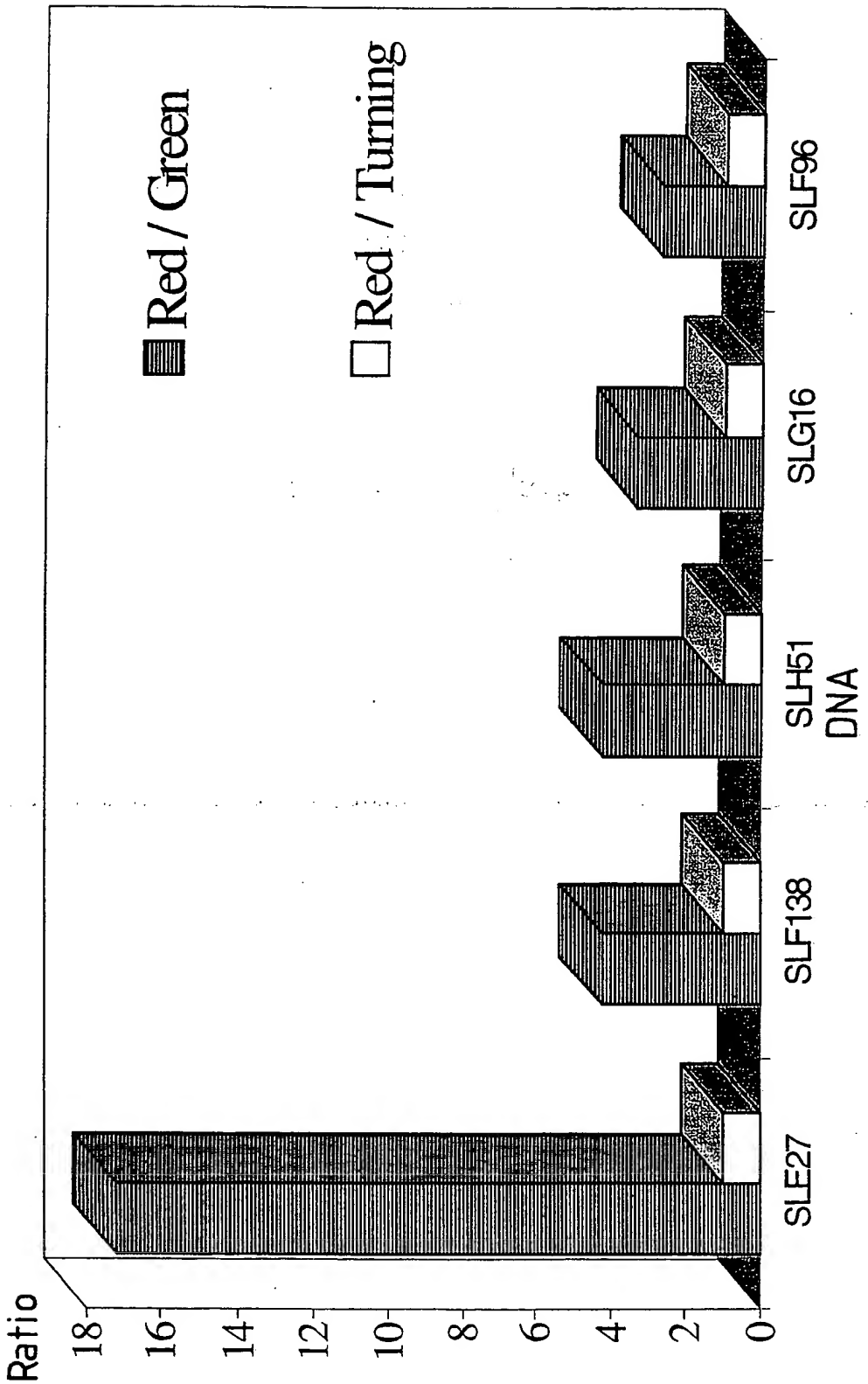



P = pellet from E27 cultures
S = supernatant from E27 cultures
E = eluate from the Ni - NTA column from E27 cultures
GFP = recombinant Green Fluorescent Protein purified in the same way as E27.

1 - 4 are four different growth and induction treatments

**figure 9**

figure 10


Red / Green
Red / Turning
Ratio
0
2
4
6
8
10
12
14
16
18
SLE27
SLF138
SLH51
SLG16
SLF96
DNA

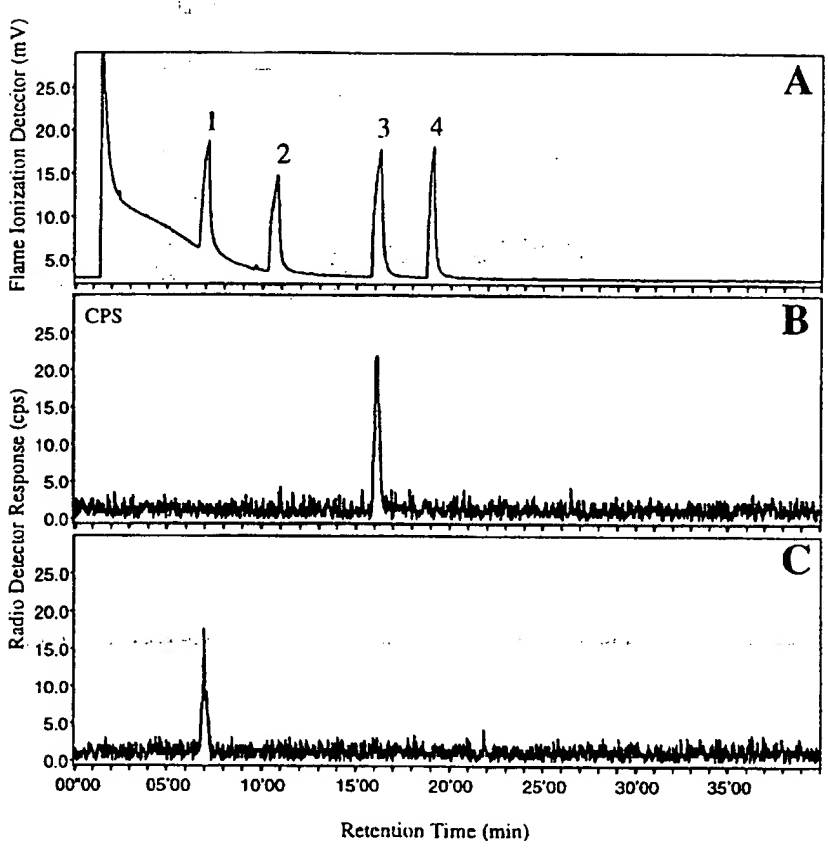

Flame Ionization Detector (mV)
A
1
2
3
4
25.0
20.0
15.0
10.0
5.0
CPS
B
Radio Detector Response (cps)
25.0
20.0
15.0
10.0
5.0
0.0
C
25.0
20.0
15.0
10.0
5.0
0.0
00'00
05'00
10'00
15'00
20'00
25'00
30'00
35'00
Retention Time (min)

**figure 11**

figure 12

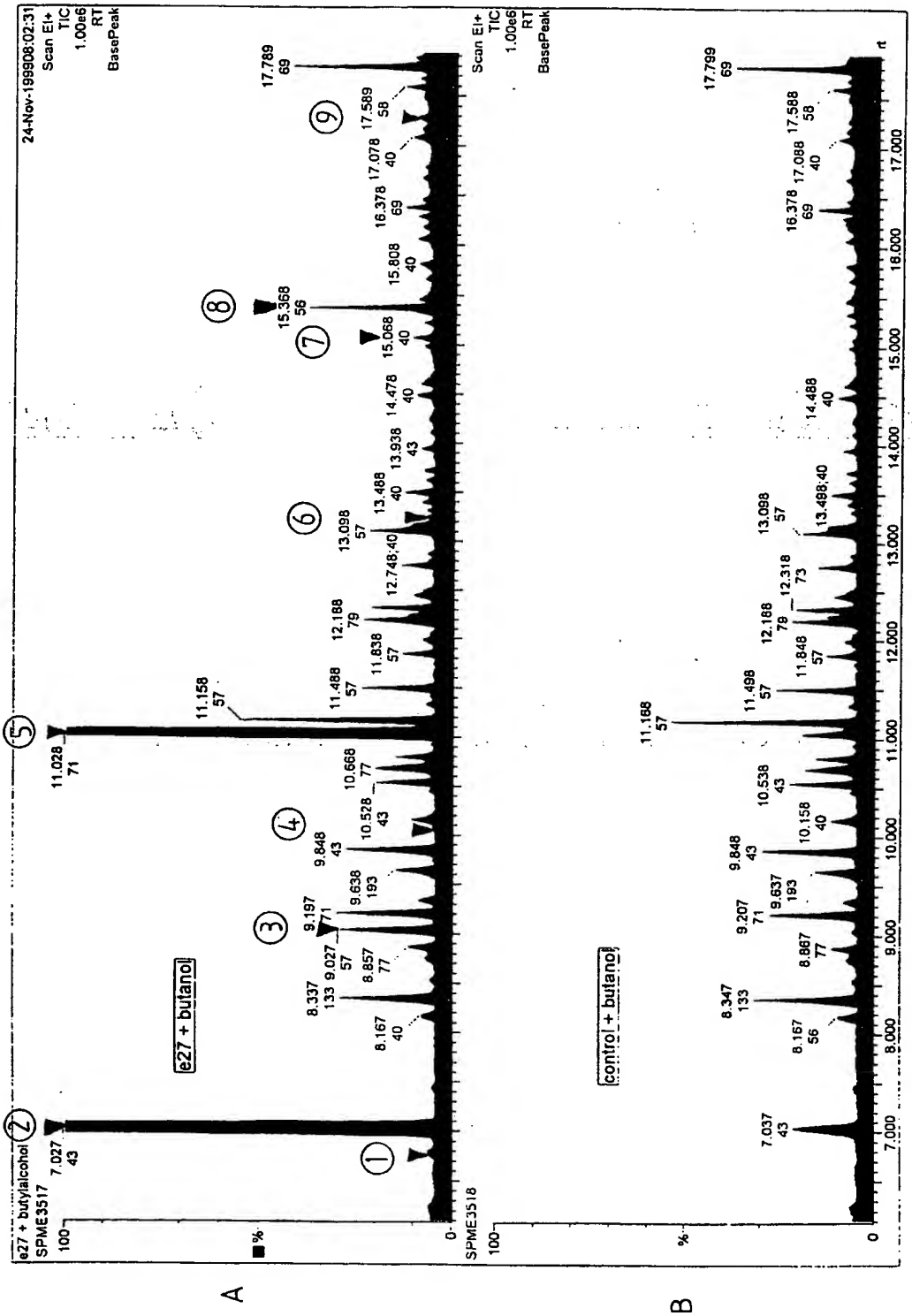

A
e27 + butylalcohol
SPME3517
24-Nov-199908:02:31
Scan EI+
TIC
1.00e6
RT
BasePeak
e27 + butanol
B
control + butanol
SPME3518

figure 13

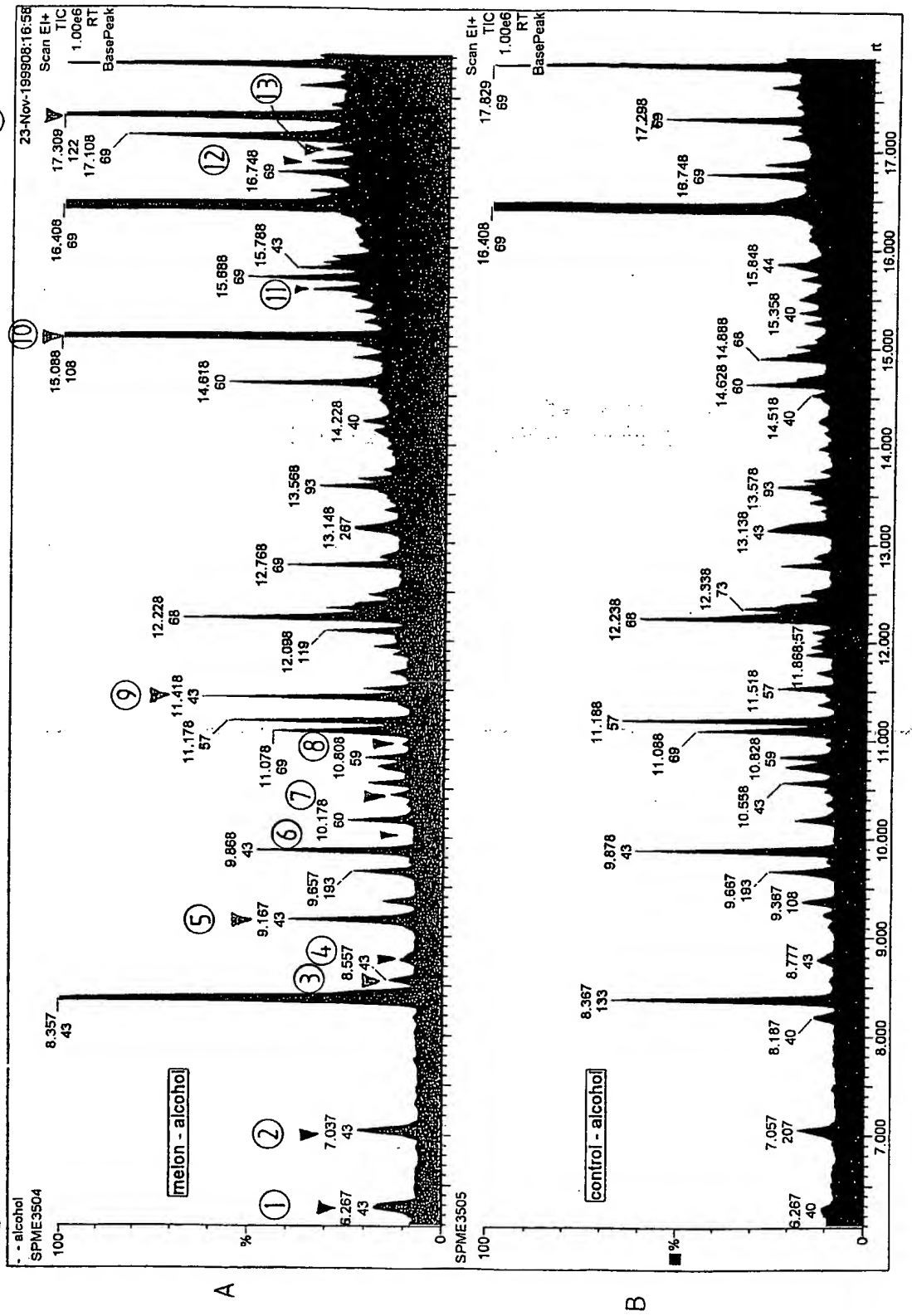

A
B
melon - alcohol
control - alcohol
SPME3504
SPME3505
23-Nov-199908:16:58
Scan EI+
TIC
1.00e6
RT
BasePeak
%
rt

figure 14

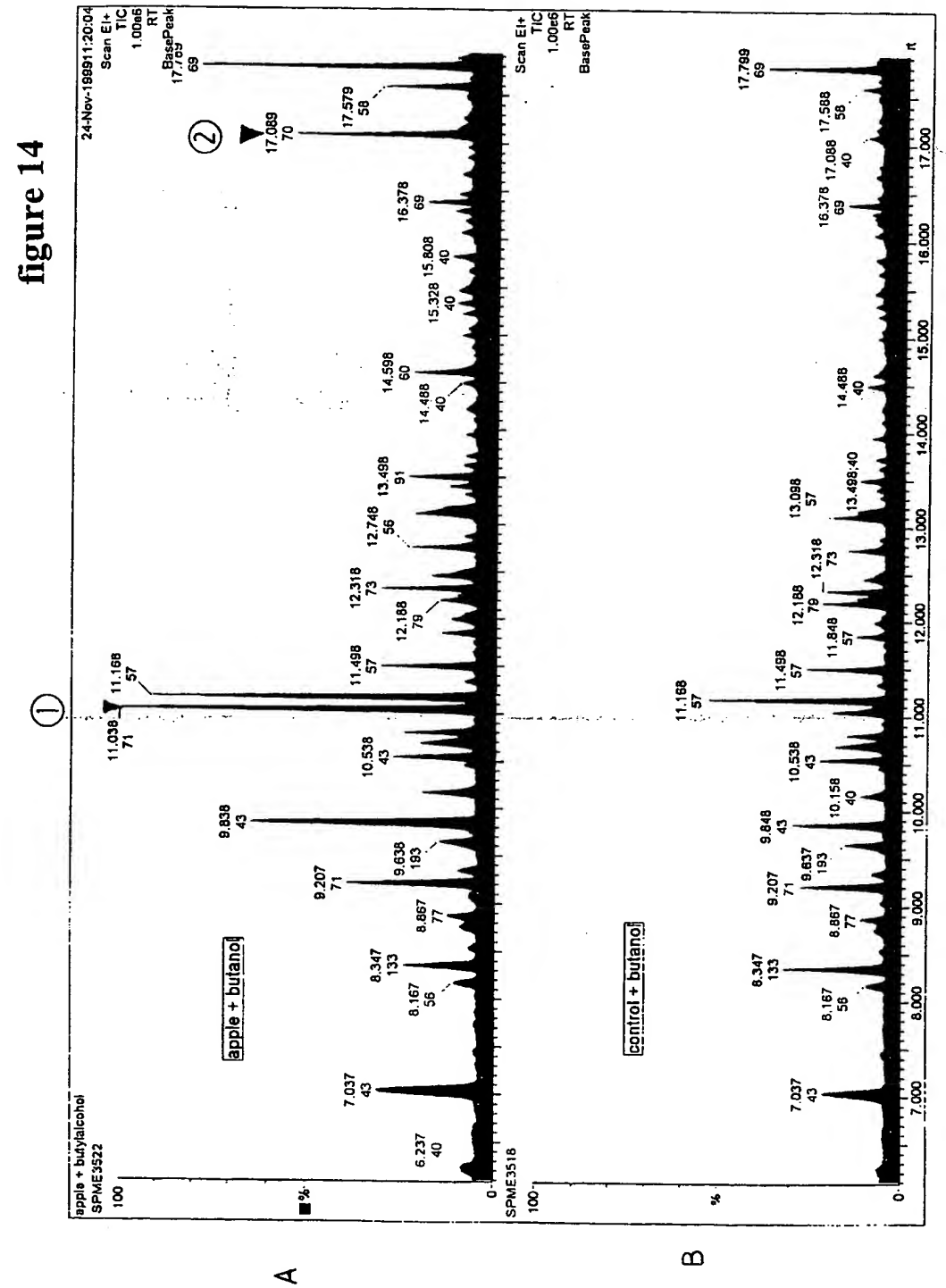

A
B
apple + butanol
control + butanol
apple + butylalcohol
SPME3522
SPME3518
24-Nov-199911:20:04
Scan EI+
TIC
1.00e6
RT
BasePeak
%
rt

figure 15

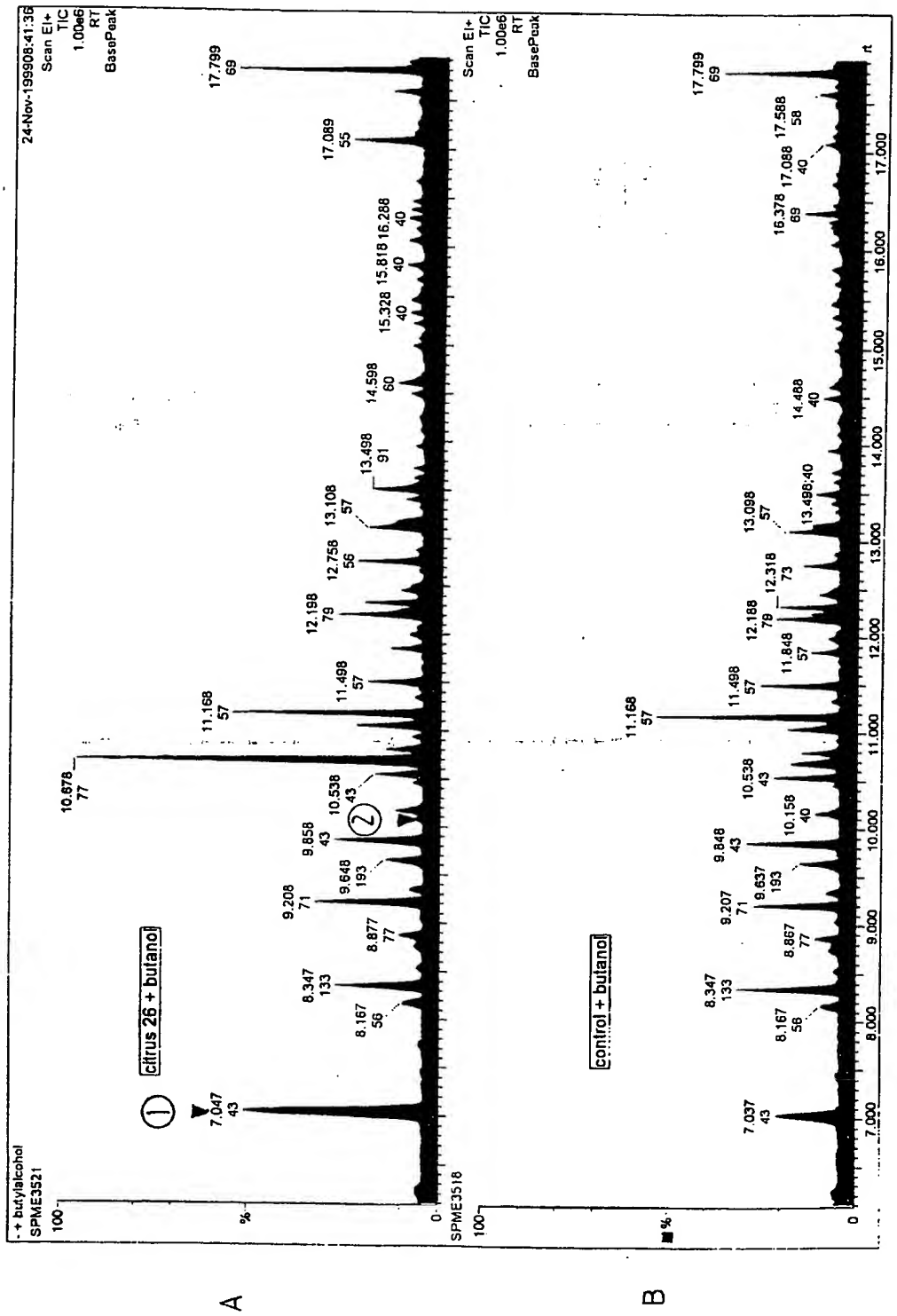

A
B
citrus 26 + butanol
control + butanol
SPME3521
SPME3518
Scan EI+
TIC
BasePeak
RT
min

figure 16

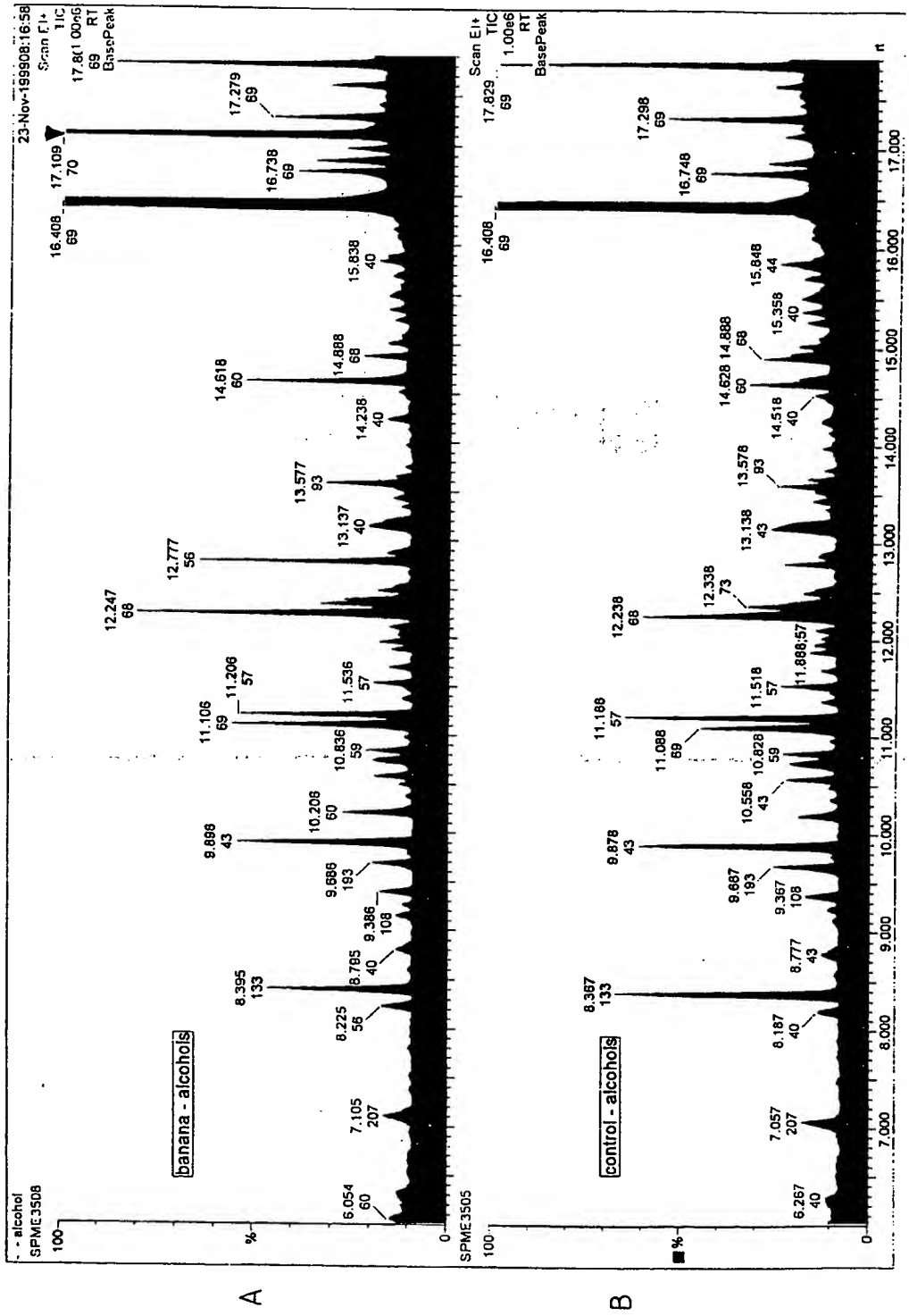

A
B
banana - alcohols
control - alcohols
SPME3508
SPME3505
23-Nov-199908:16:58
Scan EI+
TIC
BasePeak
%
100
0
6.054
7.105
8.225
8.395
8.785
8.886
9.386
9.686
10.206
10.836
11.106
11.206
11.536
12.247
12.777
13.137
13.577
14.238
14.618
14.888
15.838
16.408
17.109
17.279
16.738
6.267
7.057
8.187
8.777
8.878
9.367
9.667
10.558
10.826
11.088
11.188
11.518
11.888
12.238
12.338
13.138
13.578
14.518
14.628
14.888
15.358
15.848
16.408
16.748
17.298
17.829
7.000
8.000
9.000
10.000
11.000
12.000
13.000
14.000
15.000
16.000
17.000

figure 17

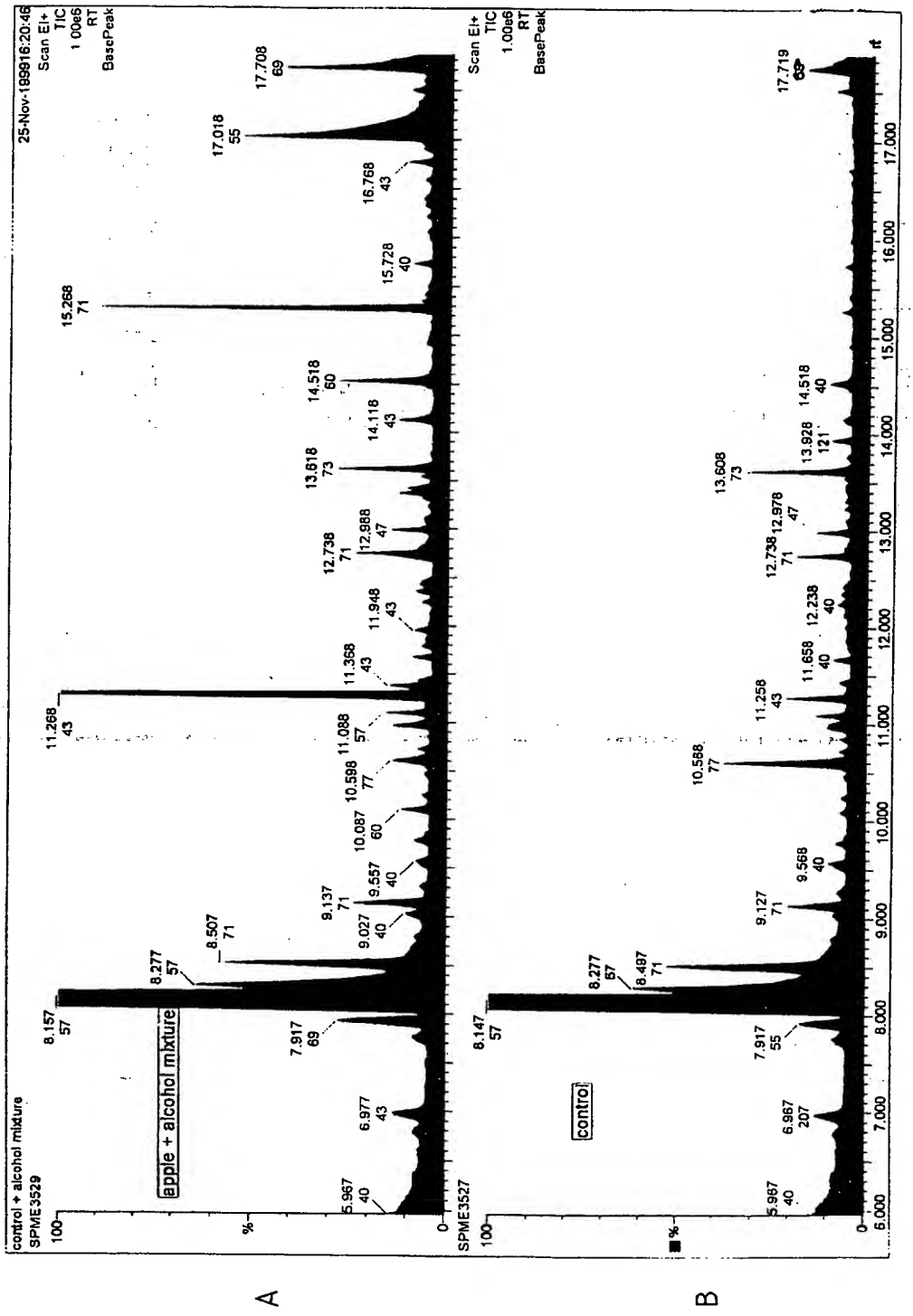
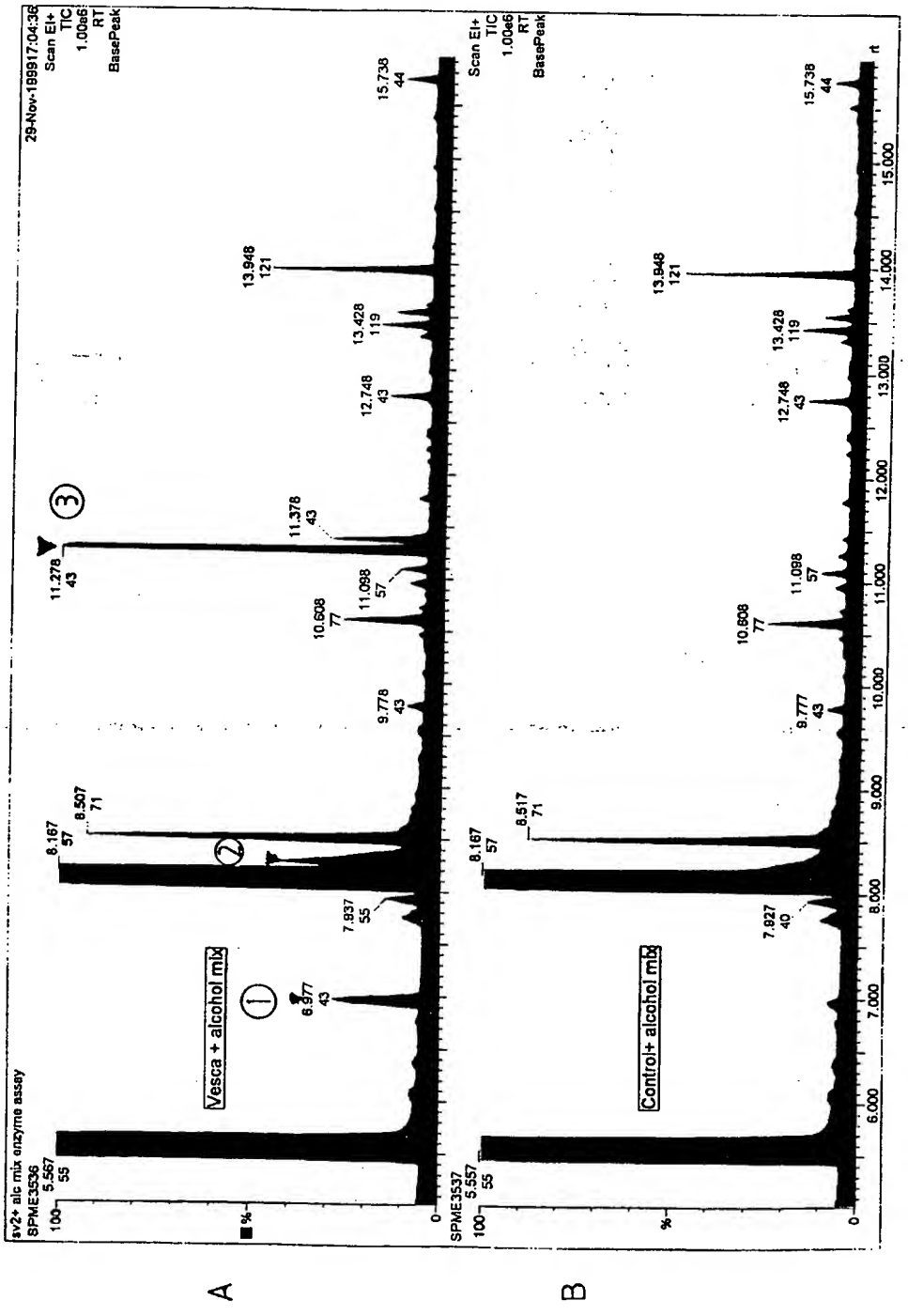

A
control + alcohol mixture
SPME3529
apple + alcohol mixture
B
SPME3527
control

figure 18


A
B
Vesca + alcohol mix
Control+ alcohol mix
sv2+ alc mix enzyme assay
SPME3536
SPME3537
29-Nov-199917:04:36
Scan EI+
TIC
1.00e6
RT
BasePeak
5.567
5.557
8.167
8.507
8.517
7.937
7.827
6.977
9.778
9.777
10.608
11.098
11.278
11.378
12.748
13.428
13.948
15.738
6.000
7.000
8.000
9.000
10.000
11.000
12.000
13.000
14.000
15.000
rt